

Map Unit Description (MN)

Rice County, Minnesota

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

4D--Renova loam, 12 to 18 percent slopes

Renova

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 7 in	loam		moderate	1.56 to 1.70 in	5.6 to 6.5
E --	7 to 12 in	loam		moderate	0.94 to 1.04 in	4.5 to 6.0
Bt1,2Bt2,2Bt --	12 to 40 in	clay loam		moderate	4.82 to 5.39 in	4.5 to 7.3
2Bt5,2BC,2C --	40 to 80 in	loam		moderately slow	3.98 to 5.96 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

4E--Renova loam, 18 to 30 percent slopes

Renova

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 30 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 12 in	loam	moderate	2.60 to 2.83 in	5.6 to 6.5
E -- 12 to 22 in	loam	moderate	2.05 to 2.25 in	4.5 to 6.0
Bt1,2Bt2,2Bt -- 22 to 55 in	clay loam	moderate	5.62 to 6.28 in	4.5 to 7.3
2Bt5,2BC,2C -- 55 to 80 in	loam	moderately slow	2.48 to 3.72 in	7.4 to 8.4

17--Minneopa sandy loam, 0 to 2 percent slopes, rarely flooded

Minneopa, rarely flooded

Extent: 90 percent of the unit

Landform(s): flood plains, terraces

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: rare

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 12 in	sandy loam	moderately rapid	1.54 to 1.77 in	5.6 to 7.3
A2,C1,C2,C3 -- 12 to 47 in	loamy sand	moderately rapid	2.45 to 3.85 in	6.1 to 7.3
C4 -- 47 to 80 in	very gravelly loamy sand	rapid	1.32 to 2.98 in	6.1 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

24--Kasson silt loam, 1 to 3 percent slopes

Kasson

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,Bt1 -- 0 to 13 in	silt loam	moderate	2.86 to 3.12 in	5.6 to 6.5
Bt2,2Bt3,2Bt -- 13 to 30 in	loam	moderate	3.05 to 3.72 in	4.5 to 6.0
2Bt5,2Bt6,2B -- 30 to 80 in	loam	moderately slow	4.50 to 6.50 in	7.4 to 8.4

39A--Wadena loam, 0 to 2 percent slopes

Wadena

Extent: 90 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .17

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,Bw1 -- 0 to 24 in	loam	moderate	4.80 to 5.28 in	6.1 to 7.3
2Bw2 -- 24 to 30 in	gravelly sandy clay loam	moderate	0.83 to 1.12 in	5.6 to 7.3
2BC,2C -- 30 to 80 in	gravelly coarse sand	very rapid	1.00 to 2.00 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

41A--Estherville sandy loam, 0 to 2 percent slopes

Estherville

Extent: 90 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 14 in	sandy loam	moderately rapid	1.84 to 2.55 in	5.6 to 7.3
A2,Bw1 -- 14 to 27 in	loamy coarse sand	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
2Bw2,2C1,2C2 -- 27 to 80 in	very gravelly coarse sand	very rapid	1.06 to 2.11 in	6.6 to 8.4

41B--Estherville sandy loam, 2 to 6 percent slopes

Estherville

Extent: 85 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.98 in	5.6 to 7.3
A2,Bw1 -- 11 to 16 in	loamy coarse sand	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
2Bw2,2C1,2C2 -- 16 to 80 in	very gravelly coarse sand	very rapid	1.28 to 2.55 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

44--Ankeny sandy loam, 0 to 3 percent slopes

Ankeny

Extent: 90 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 3 percent

Parent material: alluvium over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3,A4 -- 0 to 27 in	sandy loam	moderately rapid	4.35 to 4.89 in	6.1 to 7.3
Bw -- 27 to 44 in	fine sandy loam	moderately rapid	2.54 to 2.88 in	6.1 to 7.3
2C1,2C2 -- 44 to 80 in	loamy fine sand	rapid	4.30 to 5.02 in	6.1 to 7.3

74B--Dickinson fine sandy loam, 1 to 6 percent slopes

Dickinson

Extent: 90 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 13 in	fine sandy loam	moderately rapid	1.56 to 1.95 in	5.6 to 7.3
Bw -- 13 to 26 in	fine sandy loam	moderately rapid	1.56 to 1.95 in	5.1 to 6.5
C1 -- 26 to 52 in	loamy sand	rapid	2.08 to 2.60 in	5.1 to 6.5
C2 -- 52 to 80 in	loamy coarse sand	rapid	0.56 to 1.12 in	5.6 to 7.3

Map Unit Description (MN)

Rice County, Minnesota

81B--Boone loamy fine sand, 1 to 6 percent slopes

Boone

Extent: 90 percent of the unit

Landform(s): structural benches

Slope gradient: 1 to 6 percent

Parent material: residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	loamy fine sand	rapid	0.79 to 1.02 in	3.5 to 7.3
Bw --	8 to 15 in	fine sand	rapid	0.21 to 0.85 in	3.5 to 7.3
C1,C2 --	15 to 38 in	fine sand	rapid	0.46 to 2.56 in	4.5 to 6.5
Cr --	38 to 80 in	weathered bedrock	moderate	0.83 to 2.09 in	

Map Unit Description (MN)

Rice County, Minnesota

81D--Boone loamy fine sand, 6 to 18 percent slopes

Boone

Extent: 90 percent of the unit

Landform(s): structural benches

Slope gradient: 6 to 18 percent

Parent material: residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 6 in	loamy fine sand		rapid	0.59 to 0.77 in	3.5 to 7.3
Bw --	6 to 12 in	fine sand		rapid	0.18 to 0.71 in	3.5 to 7.3
C1,C2 --	12 to 38 in	fine sand		rapid	0.53 to 2.90 in	4.5 to 6.5
Cr --	38 to 80 in	weathered bedrock		moderate	0.83 to 2.09 in	

Map Unit Description (MN)

Rice County, Minnesota

81E--Boone loamy fine sand, 18 to 25 percent slopes

Boone

Extent: 90 percent of the unit

Landform(s): structural benches

Slope gradient: 18 to 25 percent

Parent material: residuum

Restrictive feature(s): paralithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .28

Land capability, nonirrigated 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 4 in	loamy fine sand	rapid	0.39 to 0.51 in	3.5 to 7.3
Bw --	4 to 9 in	fine sand	rapid	0.15 to 0.61 in	3.5 to 7.3
C1,C2 --	9 to 26 in	fine sand	rapid	0.34 to 1.86 in	4.5 to 6.5
Cr --	26 to 80 in	weathered bedrock	moderate	1.08 to 2.70 in	

98--Colo silty clay loam, 0 to 2 percent slopes, occasionally flooded

Colo, occasionally flooded

Extent: 90 percent of the unit

Landform(s): swales on flood plains, flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 --	0 to 16 in	silty clay loam	moderate	3.39 to 3.71 in	5.6 to 7.3
A3 --	16 to 39 in	silty clay loam	moderate	4.11 to 4.57 in	5.6 to 7.3
A4 --	39 to 80 in	silty clay loam	moderate	7.37 to 8.19 in	6.1 to 7.3

Map Unit Description (MN)

Rice County, Minnesota

99D2--Racine loam, 12 to 18 percent slopes, eroded

Racine, Eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	loam		moderate	1.56 to 1.70 in	5.1 to 7.3
Bt1 --	7 to 12 in	clay loam		moderate	0.94 to 1.04 in	4.5 to 6.0
Bt2,2Bt3,2Bt --	12 to 40 in	clay loam		moderate	4.25 to 5.39 in	4.5 to 6.0
2Bk1,2Bk2,2C --	40 to 80 in	loam		moderately slow	3.98 to 5.96 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

100A--Copaston sandy clay loam, 0 to 2 percent slopes

Copaston

Extent: 90 percent of the unit

Landform(s): structural benches

Slope gradient: 0 to 2 percent

Parent material: residuum

Restrictive feature(s): lithic bedrock at 12 to 20 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .20

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: D

Potential for frost action: moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 7 in	sandy clay loam	moderate	1.28 to 1.42 in	5.6 to 7.3
AB --	7 to 11 in	fine sandy loam	moderately rapid	0.59 to 0.67 in	5.6 to 7.3
Bw --	11 to 18 in	sandy loam	moderately rapid	0.85 to 0.99 in	5.6 to 7.8
2R --	18 to 28 in	unweathered bedrock	rapid		

102B--Clarion loam, moderately fine substratum, 2 to 5 percent slopes

Clarion, moderately fine substratum

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 5 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bw1,Bw2,Bw3, --	10 to 44 in	loam	moderate	5.82 to 6.51 in	5.6 to 7.8
C --	44 to 80 in	loam	moderate	6.09 to 6.81 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

104B--Hayden loam, 2 to 6 percent slopes

Hayden

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 9 to 43 in	clay loam	moderate	5.08 to 6.43 in	5.1 to 7.3
Bk1,Bk2 -- 43 to 80 in	loam	moderate	5.18 to 7.03 in	7.4 to 8.4

104C2--Hayden loam, 6 to 12 percent slopes, eroded

Hayden, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 7 to 32 in	clay loam	moderate	3.72 to 4.71 in	5.1 to 7.3
Bk1,Bk2 -- 32 to 80 in	loam	moderate	6.72 to 9.13 in	7.4 to 8.4

Map Unit Description (MN)

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104D2--Hayden loam, 12 to 18 percent slopes, eroded

Hayden, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk1,Bk2 -- 38 to 80 in	loam	moderate	5.84 to 7.93 in	7.4 to 8.4

104E--Hayden loam, 18 to 25 percent slopes

Hayden

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	loam	moderate	1.02 to 1.13 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 5 to 30 in	clay loam	moderate	3.72 to 4.71 in	5.1 to 7.3
Bk1,Bk2 -- 30 to 80 in	loam	moderate	7.00 to 9.50 in	7.4 to 8.4

Map Unit Description (MN)

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106C2--Lester loam, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 6 to 24 in	clay loam	moderate	2.72 to 3.44 in	5.1 to 7.3
Bk1,Bk2 -- 24 to 80 in	loam	moderate	7.83 to 10.62 in	7.4 to 8.4

106D2--Lester loam, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 7 to 42 in	clay loam	moderate	5.26 to 6.66 in	5.1 to 7.3
Bk1,Bk2 -- 42 to 80 in	loam	moderate	5.29 to 7.18 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

106E--Lester loam 18 to 25 percent slopes

Lester

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 8 to 38 in	clay loam	moderate	4.55 to 5.76 in	5.1 to 7.3
Bk1,Bk2 -- 38 to 80 in	loam	moderate	5.84 to 7.93 in	7.4 to 8.4

109--Cordova clay loam, 0 to 2 percent slopes

Cordova

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 13 in	clay loam	moderately slow	2.34 to 2.86 in	6.1 to 7.3
Btg1,Btg2,Bt -- 13 to 36 in	clay loam	moderately slow	3.43 to 4.34 in	5.1 to 6.5
Cg -- 36 to 60 in	loam	moderate	3.36 to 3.84 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

113--Webster clay loam, 0 to 2 percent slopes

Webster

Extent: 85 percent of the unit

Landform(s): flats on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 13 in	clay loam		moderate	2.47 to 2.73 in	6.6 to 7.3
AB,Bw1,Bw2 --	13 to 48 in	clay loam		moderate	5.61 to 6.31 in	6.6 to 7.8
BC,C --	48 to 80 in	loam		moderate	4.46 to 6.06 in	7.4 to 8.4

114--Glencoe clay loam, depressional, 0 to 1 percent slopes

Glencoe, depressional

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 --	0 to 12 in	clay loam		moderate	2.13 to 2.60 in	6.1 to 7.8
A2,ABg --	12 to 27 in	clay loam		moderate	2.76 to 3.38 in	6.1 to 7.8
Bg --	27 to 36 in	clay loam		moderate	1.30 to 1.65 in	6.6 to 7.8
Cg --	36 to 80 in	clay loam		moderate	6.61 to 8.38 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

130--Nicollet clay loam, 1 to 3 percent slopes

Nicollet

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2 -- 0 to 20 in	clay loam	moderate	3.41 to 4.42 in	5.6 to 7.3
Bw,Bg1,Bg2 -- 20 to 40 in	clay loam	moderate	3.01 to 3.81 in	5.6 to 7.8
C -- 40 to 80 in	loam	moderate	5.57 to 7.56 in	7.4 to 8.4

134--Okoboji silty clay loam, depressional, 0 to 1 percent slopes

Okoboji, depressional

Extent: 85 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 7 in	silty clay loam	moderately slow	1.49 to 1.63 in	6.1 to 7.8
A2,A3,A4 -- 7 to 40 in	silty clay	moderately slow	5.95 to 6.61 in	6.6 to 7.8
Cg1,Cg2,Cg3 - 40 to 80 in	silty clay	moderately slow	7.16 to 7.95 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

138B--Lerdal clay loam, 2 to 6 percent slopes

Lerdal

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 12 in	clay loam	moderate	2.13 to 2.60 in	5.6 to 6.5
Bt,Btg -- 12 to 41 in	silty clay loam	slow	3.79 to 5.54 in	4.5 to 6.0
Bk -- 41 to 80 in	clay loam	moderately slow	5.46 to 7.41 in	6.6 to 7.8

138C--Lerdal clay loam, 6 to 12 percent slopes

Lerdal

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 8 in	clay loam	moderate	1.42 to 1.73 in	5.6 to 6.5
Bt,Btg -- 8 to 42 in	silty clay loam	slow	4.45 to 6.51 in	4.5 to 6.0
Bk -- 42 to 80 in	clay loam	moderately slow	5.29 to 7.18 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

176--Garwin silt loam, 0 to 2 percent slopes

Garwin

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.65 to 1.81 in	5.6 to 7.3
A,Bg1 -- 8 to 22 in	silty clay loam	moderate	2.55 to 2.83 in	6.1 to 7.3
Bg2,Cg -- 22 to 80 in	silt loam	moderate	11.57 to 12.73 in	6.6 to 7.8

208--Kato silty clay loam, 0 to 1 percent slopes

Kato

Extent: 85 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 1 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	silty clay loam	moderate	2.55 to 3.40 in	6.1 to 7.8
AB,Bg -- 14 to 29 in	silty clay loam	moderate	2.69 to 3.29 in	5.1 to 7.3
2Cg1,2Cg2,2C -- 29 to 80 in	very gravelly coarse sand	rapid	1.02 to 3.56 in	6.1 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

213B--Klinger silty clay loam, 1 to 4 percent slopes

Klinger

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 4 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,Bt1,Bt2 -- 0 to 21 in	silty clay loam	moderate	4.59 to 5.01 in	5.1 to 7.3
2Bt3,2Bt4,2B -- 21 to 43 in	clay loam	moderate	3.97 to 4.41 in	5.1 to 6.5
2Btk,2Bck -- 43 to 80 in	clay loam	moderately slow	3.70 to 5.55 in	6.1 to 7.8

219--Rolfe silt loam, depressional, 0 to 1 percent slopes

Rolfe, depressional

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.1 to 7.3
Btg1,Btg2,Bt -- 12 to 33 in	clay	slow	2.34 to 2.76 in	6.1 to 7.3
2Btg5,2Btg6, -- 33 to 80 in	clay loam	moderate	6.56 to 7.50 in	6.1 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

238B--Kilkenny loam, 2 to 6 percent slopes

Kilkenny

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.63 to 1.99 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 9 to 54 in	clay loam	moderately slow	6.73 to 8.53 in	5.6 to 7.3
2C -- 54 to 80 in	loam	moderate	3.64 to 4.16 in	7.4 to 7.8

238C2--Kilkenny clay loam, 6 to 12 percent slopes, eroded

Kilkenny, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderately slow	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 9 to 53 in	clay loam	moderately slow	6.61 to 8.38 in	5.6 to 7.3
2C -- 53 to 80 in	loam	moderate	3.75 to 4.28 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

238D2--Kilkenny clay loam, 12 to 18 percent slopes, eroded

Kilkenny, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	clay loam		moderately slow	1.34 to 1.50 in	5.6 to 7.3
Bt1,Bt2,Bt3 --	8 to 46 in	clay loam		moderately slow	5.73 to 7.26 in	5.6 to 7.3
2C --	46 to 80 in	loam		moderate	4.74 to 5.42 in	7.4 to 7.8

238E--Kilkenny clay loam, 18 to 25 percent slopes

Kilkenny

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	clay loam		moderately slow	1.20 to 1.35 in	5.6 to 7.3
Bt1,Bt2,Bt3 --	7 to 38 in	clay loam		moderately slow	4.67 to 5.91 in	5.6 to 7.3
2C --	38 to 80 in	loam		moderate	5.84 to 6.68 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

238F--Kilkenny loam, 25 to 35 percent slopes

Kilkenny

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 35 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	loam	moderate	0.92 to 1.13 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 5 to 34 in	clay loam	moderately slow	4.31 to 5.46 in	5.6 to 7.3
2C -- 34 to 80 in	loam	moderate	6.45 to 7.37 in	7.4 to 7.8

239--Le Sueur clay loam, 1 to 3 percent slopes

Le Sueur

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .15

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 11 in	clay loam	moderate	1.87 to 2.20 in	5.6 to 7.3
Bt1,Bt2 -- 11 to 42 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
C -- 42 to 80 in	loam	moderate	5.67 to 7.18 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

253--Maxcreek silty clay loam, 0 to 1 percent slopes

Maxcreek

Extent: 90 percent of the unit

Landform(s): flats on moraines

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 18 in	silty clay loam	moderate	3.26 to 3.98 in	6.1 to 7.3
Bg1,2Bg2 -- 18 to 36 in	silt loam	moderate	3.54 to 3.90 in	6.1 to 7.3
2Cg -- 36 to 80 in	loam	moderate	7.50 to 8.38 in	7.4 to 7.8

256--Mazaska clay loam, 0 to 2 percent slopes

Mazaska

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	clay loam	moderately slow	2.54 to 3.29 in	6.1 to 7.3
Btg1,Btg2,Bt -- 15 to 42 in	clay	slow	2.72 to 4.35 in	4.5 to 6.5
Bk -- 42 to 80 in	clay loam	moderate	5.29 to 6.05 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

285A--Port Byron silt loam, 0 to 2 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): ridges

Slope gradient: 0 to 2 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .43

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.1 to 8.4
Bw1,Bw2 -- 12 to 40 in	silt loam	moderate	5.67 to 6.24 in	5.6 to 7.3
C1,C2 -- 40 to 80 in	silt loam	moderate	7.95 to 8.75 in	5.6 to 8.4

285B--Port Byron silt loam, 2 to 6 percent slopes

Port Byron

Extent: 90 percent of the unit

Landform(s): ridges

Slope gradient: 2 to 6 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .43

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	silt loam	moderate	3.12 to 3.40 in	5.1 to 8.4
Bw1,Bw2 -- 14 to 42 in	silt loam	moderate	5.59 to 6.15 in	5.6 to 7.3
C1,C2 -- 42 to 80 in	silt loam	moderate	7.56 to 8.31 in	5.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

301B--Lindstrom silt loam, 2 to 6 percent slopes

Lindstrom

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: alluvium over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 --	0 to 16 in	silt loam	moderate	3.23 to 3.55 in	5.6 to 7.3
A2 --	16 to 30 in	silt loam	moderate	3.03 to 3.58 in	5.6 to 7.3
Bw1,Bw2 --	30 to 60 in	silt loam	moderate	5.98 to 6.58 in	5.6 to 7.3
C --	60 to 80 in	silt loam	moderate	3.41 to 3.81 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

301C--Lindstrom silt loam, 6 to 12 percent slopes

Lindstrom

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: alluvium over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 --	0 to 10 in	silt loam	moderate	1.97 to 2.17 in	5.6 to 7.3
A2 --	10 to 26 in	silt loam	moderate	3.55 to 4.20 in	5.6 to 7.3
Bw1,Bw2 --	26 to 43 in	silt loam	moderate	3.39 to 3.72 in	5.6 to 7.3
C --	43 to 80 in	silt loam	moderate	6.29 to 7.03 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

307--Sargeant silt loam, 0 to 2 percent slopes

Sargeant

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	silt loam	moderate	1.56 to 1.70 in	5.1 to 6.5
E,E/B,B/E --	7 to 25 in	silt loam	moderate	3.62 to 4.35 in	4.5 to 6.5
2Bt1,2Bt2,2B --	25 to 55 in	loam	slow	2.99 to 4.49 in	4.5 to 6.5
2Bt4,2C --	55 to 80 in	sandy clay loam	slow	1.98 to 3.47 in	6.1 to 7.8

323--Shields silty clay loam, 0 to 2 percent slopes

Shields

Extent: 85 percent of the unit

Landform(s): flats on moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	silty clay loam	moderate	1.42 to 1.73 in	5.6 to 6.5
B/E,Btg1,Btg --	8 to 53 in	silty clay	slow	4.53 to 7.24 in	4.5 to 6.5
Bk1,Bk2 --	53 to 80 in	clay loam	moderate	2.94 to 5.09 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

376B--Moland silt loam, 1 to 4 percent slopes

Moland

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 4 percent

Parent material: eolian deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A	--	0 to 14 in	silt loam	moderate	3.12 to 3.40 in	5.6 to 7.3
Bw1	--	14 to 20 in	silt loam	moderate	1.18 to 1.30 in	5.6 to 6.5
2Bw2,2Bw3,2B	--	20 to 49 in	loam	moderate	4.89 to 5.46 in	5.6 to 7.3
2C	--	49 to 80 in	loam	moderate	5.29 to 5.91 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

377--Merton silt loam, 1 to 3 percent slopes

Merton

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: eolian deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 15 in	silt loam	moderate	3.29 to 3.59 in	5.6 to 7.3
Bw1,2Bw2,2C1 -- 15 to 55 in	loam	moderate	8.03 to 8.83 in	5.6 to 7.3
2C2 -- 55 to 80 in	loam	moderate	4.22 to 4.71 in	5.6 to 7.8

378--Maxfield silty clay loam, 0 to 2 percent slopes

Maxfield

Extent: 85 percent of the unit

Landform(s): flats on moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 -- 0 to 15 in	silty clay loam	moderate	3.14 to 3.44 in	6.6 to 7.3
A2,Bg1,Bg2 -- 15 to 27 in	silt loam	moderate	2.20 to 2.44 in	6.1 to 7.3
2Bw,2C -- 27 to 80 in	loam	moderate	8.97 to 10.02 in	6.1 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

382B--Blooming silt loam, 2 to 6 percent slopes

Blooming

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: eolian deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 9 in	silt loam		moderate	2.17 to 2.72 in	5.6 to 6.5
Bt1,Bt2 --	9 to 19 in	silty clay loam		moderate	1.77 to 2.17 in	5.6 to 6.5
2Bt3,2Bt4,2B --	19 to 44 in	clay loam		moderate	4.03 to 4.79 in	5.1 to 7.3
2Bk2 --	44 to 80 in	loam		moderate	6.09 to 6.81 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

382C2--Blooming silt loam, 6 to 12 percent slopes, eroded

Blooming, eroded

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: eolian deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	silt loam		moderate	1.70 to 2.13 in	5.6 to 6.5
Bt1,Bt2 --	7 to 23 in	silty clay loam		moderate	2.83 to 3.46 in	5.6 to 6.5
2Bt3,2Bt4,2B --	23 to 45 in	clay loam		moderate	3.53 to 4.19 in	5.1 to 7.3
2Bk2 --	45 to 70 in	loam		moderate	4.28 to 4.79 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

392--Biscay loam, 0 to 2 percent slopes

Biscay

Extent: 85 percent of the unit

Landform(s): flats on outwash plains, swales on outwash plains, flats on terraces, swales on terraces

Slope gradient: 0 to 2 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB --	0 to 20 in	loam		moderate	4.02 to 4.42 in	6.1 to 7.8
Bg --	20 to 25 in	loam		moderate	0.87 to 0.97 in	6.6 to 7.8
BCg --	25 to 33 in	sandy loam		moderately rapid	0.87 to 1.34 in	6.6 to 7.8
2Cg2 --	33 to 80 in	gravelly coarse sand		very rapid	0.94 to 1.87 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

408--Faxon clay loam, 0 to 1 percent slopes

Faxon

Extent: 95 percent of the unit

Landform(s): strath terraces

Slope gradient: 0 to 1 percent

Parent material: residuum

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 15 in	clay loam	moderate	2.99 to 3.59 in	6.6 to 7.8
Bg1,Bg2,Bg3 -- 15 to 34 in	loam	moderate	2.27 to 3.59 in	6.6 to 7.8
2R -- 34 to 44 in	unweathered bedrock	rapid		

411A--Waukegan silt loam, 0 to 2 percent slopes

Waukegan

Extent: 85 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 2 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.6 to 7.3
Bw1,Bw2,Bw3 -- 12 to 33 in	silt loam	moderate	4.25 to 4.68 in	5.1 to 7.3
2Bw4,2C -- 33 to 80 in	gravely coarse sand	very rapid	0.94 to 1.87 in	5.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

411B--Waukegan silt loam, 2 to 6 percent slopes

Waukegan

Extent: 85 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 2 to 6 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 10 in	silt loam	moderate	2.17 to 2.36 in	5.6 to 7.3
Bw1,Bw2,Bw3 -- 10 to 22 in	silt loam	moderate	2.44 to 2.69 in	5.1 to 7.3
2Bw4,2C -- 22 to 80 in	gravelly coarse sand	very rapid	1.16 to 2.31 in	5.6 to 7.8

414--Hamel loam, 1 to 3 percent slopes

Hamel

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: alluvium over colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1,A2,A3 -- 0 to 21 in	loam	moderate	4.17 to 5.01 in	5.6 to 7.3
Btg1,Btg2 -- 21 to 51 in	silty clay loam	moderately slow	4.85 to 5.76 in	5.6 to 7.3
Cg -- 51 to 80 in	silty clay loam	moderate	4.02 to 5.17 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

463A--Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Minneiska, occasionally flooded

Extent: 85 percent of the unit

Landform(s): flood plains, terraces

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .10

Land capability, nonirrigated 2w

Hydric soil: no

Hydrologic group: A/D

Potential for frost action: moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 9 in	fine sandy loam	moderately rapid	1.81 to 1.99 in	7.4 to 8.4
C1 --	9 to 20 in	stratified loamy fine sand to fine sandy loam	moderately rapid	1.43 to 1.98 in	7.4 to 8.4
C2 --	20 to 80 in	stratified loamy fine sand to fine sandy loam	rapid	2.99 to 4.79 in	7.4 to 8.4

484D--Eyota fine sandy loam, 12 to 18 percent slopes

Eyota

Extent: 90 percent of the unit

Landform(s): structural benches

Slope gradient: 12 to 18 percent

Parent material: alluvium over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3 --	0 to 35 in	fine sandy loam	moderately rapid	4.56 to 5.61 in	5.1 to 7.3
2Bw1,2Bw2 --	35 to 48 in	loam	moderate	2.60 to 2.86 in	4.5 to 6.5
3C --	48 to 80 in	loamy fine sand	rapid	2.55 to 4.46 in	6.1 to 7.3

Map Unit Description (MN)

Rice County, Minnesota

523--Houghton muck, depressional, 0 to 1 percent slopes

Houghton, depressional

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 8 in	muck	moderately rapid	2.76 to 3.54 in	
Oa2,Oa3,Oa4, -- 8 to 80 in	muck	moderately rapid	25.22 to 32.42 in	

525--Muskego muck, depressional, 0 to 1 percent slopes

Muskego, depressional

Extent: 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material over coprogenic material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
OaOap,Oa1,Oa -- 0 to 27 in	muck	moderately rapid	9.51 to 12.22 in	
C -- 27 to 80 in	coprogenous earth	slow	9.50 to 12.66 in	

Map Unit Description (MN)

Rice County, Minnesota

528B--Klossner muck, seep land, 1 to 6 percent slopes

Klossner, seep land

Extent: 85 percent of the unit

Landform(s): fens

Slope gradient: 1 to 6 percent

Parent material: organic material over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .02

Land capability, nonirrigated 7w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 12 in	muck		moderately rapid	4.13 to 5.67 in	
Oa --	12 to 42 in	muck		moderate	6.67 to 7.88 in	
A --	42 to 55 in	mucky silt loam		moderate	2.34 to 2.86 in	
Cg --	55 to 80 in	silt loam		moderate	3.72 to 4.71 in	

Map Unit Description (MN)

Rice County, Minnesota

529A--Ripon silt loam, 0 to 2 percent slopes

Ripon

Extent: 85 percent of the unit

Landform(s): structural benches

Slope gradient: 0 to 2 percent

Parent material: residuum

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,BA --	0 to 15 in	silt loam	moderate	3.29 to 3.59 in	5.6 to 7.8
Bt1,Bt2 --	15 to 28 in	silt loam	moderate	2.34 to 2.86 in	5.1 to 6.5
2Bt3 --	28 to 32 in	clay loam	moderate	0.55 to 0.75 in	6.1 to 8.4
3R --	32 to 42 in	unweathered bedrock	moderate		

Map Unit Description (MN)

Rice County, Minnesota

529B--Ripon silt loam, 2 to 6 percent slopes

Ripon

Extent: 85 percent of the unit

Landform(s): structural benches

Slope gradient: 2 to 6 percent

Parent material: residuum

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,BA --	0 to 27 in	silt loam	moderate	5.98 to 6.52 in	5.6 to 7.8
Bt1,Bt2 --	27 to 31 in	silt loam	moderate	0.71 to 0.87 in	5.1 to 6.5
2Bt3 --	31 to 38 in	clay loam	moderate	0.99 to 1.35 in	6.1 to 8.4
3R --	38 to 48 in	unweathered bedrock	moderate		

Map Unit Description (MN)

Rice County, Minnesota

548--Medo muck, depressional, 0 to 1 percent slopes

Medo, depressional

Extent: 85 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer)

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2,Oa3 -	0 to 25 in	muck	moderately rapid	8.82 to 11.34 in	
-					
2A --	25 to 31 in	silt loam	moderately rapid	0.77 to 1.18 in	
2Cg1,3Cg2 --	31 to 45 in	sandy loam	moderately rapid	1.79 to 2.76 in	
3Cg3 --	45 to 80 in	gravelly coarse sand	rapid	1.05 to 3.50 in	

Map Unit Description (MN)

Rice County, Minnesota

572--Lowlein sandy loam, 1 to 5 percent slopes

Lowlein

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 5 percent

Parent material: outwash over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .05

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 1.95 in	6.1 to 7.3
Bw1 -- 13 to 24 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
Bw2,Bw3 -- 24 to 46 in	loamy sand	rapid	1.32 to 2.43 in	6.1 to 7.3
2C -- 46 to 80 in	loam	moderate	5.76 to 6.43 in	7.4 to 8.4

611D--Hawick sandy loam, 12 to 25 percent slopes

Hawick

Extent: 85 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 12 to 25 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 7s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.8
AC -- 9 to 16 in	very gravelly loamy coarse sand	rapid	0.21 to 0.71 in	6.1 to 7.8
C -- 16 to 60 in	gravelly coarse sand	very rapid	0.87 to 2.62 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

757--Nerwoods loam, 2 to 6 percent slopes

Nerwoods

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: alluvium over colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .37

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 12 in	loam		moderate	2.36 to 2.60 in	5.1 to 7.3
2A2Bw1,2Bw2, --	12 to 44 in	silt loam		moderate	6.78 to 7.43 in	5.1 to 7.3
3Bw4 --	44 to 50 in	silty clay loam		moderate	1.18 to 1.36 in	5.6 to 7.8
3Bw5,3C --	50 to 80 in	clay loam		moderately slow	1.50 to 2.99 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

761--Epsom silty clay loam, 0 to 2 percent slopes, frequently flooded

Epsom, frequently flooded

Extent: 90 percent of the unit

Landform(s): flats on flood plains, swales on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium over colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 6w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 8 in	silty clay loam	moderate	1.65 to 1.81 in	6.1 to 7.3
A2,A3 -- 8 to 30 in	silty clay loam	moderate	3.97 to 4.63 in	6.1 to 7.3
Bg1,2Bg2,2Bg -- 30 to 60 in	silt loam	moderate	5.39 to 6.28 in	6.1 to 7.3
3Cd -- 60 to 80 in	loam	moderately slow	1.00 to 2.01 in	7.4 to 8.4

764--Klossner muck, 0 to 1 percent slopes, flooded

Klossner, frequently flooded

Extent: 90 percent of the unit

Landform(s): flats on flood plains, swales on flood plains

Slope gradient: 0 to 1 percent

Parent material: organic material over alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer)

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 42 in	muck	moderately rapid	14.74 to 20.22 in	
Oa2 -- 42 to 56 in	mucky silt loam	moderate	3.03 to 3.58 in	
A,Cg -- 56 to 80 in	silt loam	moderate	4.32 to 5.28 in	

Map Unit Description (MN)

Rice County, Minnesota

783C2--Lester-Kilkenny complex, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 50 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderate	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 21 in	clay loam	moderate	1.77 to 2.24 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 21 to 80 in	loam	moderate	8.27 to 11.22 in	7.4 to 8.4

Kilkenny, eroded

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	clay loam	moderately slow	1.20 to 1.35 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 7 to 35 in	clay loam	moderately slow	4.19 to 5.31 in	5.6 to 7.3
2C -- 35 to 80 in	loam	moderate	6.28 to 7.18 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

783D2--Lester-Kilkenny complex, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 50 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderate	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 40 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 40 to 80 in	loam	moderate	5.57 to 7.56 in	7.4 to 8.4

Kilkenny, eroded

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	clay loam	moderately slow	1.20 to 1.35 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 7 to 15 in	clay loam	moderately slow	1.18 to 1.50 in	5.6 to 7.3
2C -- 15 to 80 in	loam	moderate	9.09 to 10.39 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

783E--Lester-Kilkenny complex, 18 to 25 percent slopes

Lester

Extent: 45 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
Bt1,Bt2 -- 10 to 30 in	clay loam	moderate	3.01 to 3.81 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 30 to 80 in	loam	moderate	7.00 to 9.50 in	7.4 to 8.4

Kilkenny

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderately slow	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 9 to 47 in	clay loam	moderately slow	5.67 to 7.18 in	5.6 to 7.3
2C -- 47 to 80 in	loam	moderate	4.63 to 5.29 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

783F--Lester-Kilkenny complex, 25 to 35 percent slopes

Lester

Extent: 45 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 35 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 45 in	clay loam	moderate	5.37 to 6.81 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 45 to 80 in	loam	moderate	4.91 to 6.66 in	7.4 to 8.4

Kilkenny

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 35 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 11 in	loam	moderate	1.98 to 2.43 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 11 to 34 in	clay loam	moderately slow	3.43 to 4.34 in	5.6 to 7.3
2C -- 34 to 80 in	loam	moderate	6.45 to 7.37 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

849B--Urban land-Estherville complex, 1 to 6 percent slopes

Urban land

Extent: 60 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Estherville

Extent: 40 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

A1 --	0 to 11 in	sandy loam	moderately rapid	1.43 to 1.98 in	5.6 to 7.3
A2,Bw1 --	11 to 16 in	loamy coarse sand	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
2Bw2,2C1,2C2 --	16 to 80 in	very gravelly coarse sand	very rapid	1.28 to 2.55 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

860C--Urban land-Hayden complex, 6 to 15 percent slopes

Urban land

Extent: 60 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Hayden

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Ap --	0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
Bt1,Bt2,Bt2, --	6 to 36 in	clay loam	moderate	4.49 to 5.69 in	5.1 to 7.3
Bk2 --	36 to 80 in	loam	moderate	6.17 to 8.38 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

875B--Hawick-Estherville complex, 2 to 6 percent slopes

Hawick

Extent: 55 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.8
AC -- 9 to 16 in	very gravelly loamy coarse sand	rapid	0.21 to 0.71 in	6.1 to 7.8
C -- 16 to 80 in	gravelly coarse sand	very rapid	1.28 to 3.83 in	7.4 to 8.4

Estherville

Extent: 35 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 8 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
A2,Bw1 -- 8 to 23 in	loamy coarse sand	moderately rapid	1.94 to 2.69 in	5.6 to 7.3
2Bw2,2C1,2C2 -- 23 to 80 in	very gravelly coarse sand	very rapid	1.14 to 2.28 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

875C--Hawick-Estherville complex, 6 to 12 percent slopes

Hawick

Extent: 60 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.8
AC --	9 to 15 in	very gravelly loamy coarse sand	rapid	0.18 to 0.59 in	6.1 to 7.8
C --	15 to 80 in	gravelly coarse sand	very rapid	1.30 to 3.90 in	7.4 to 8.4

Estherville

Extent: 25 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 --	0 to 6 in	sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
A2,Bw1 --	6 to 14 in	loamy coarse sand	moderately rapid	1.07 to 1.49 in	5.6 to 7.3
2Bw2,2C1,2C2 --	14 to 80 in	very gravelly coarse sand	very rapid	1.31 to 2.63 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

945C2--Lester-Storden complex, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 55 in	clay loam	moderate	6.91 to 8.75 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 55 to 80 in	loam	moderate	3.47 to 4.71 in	7.4 to 8.4

Storden, eroded

Extent: 20 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
C1,C2,C3,C4 -- 7 to 47 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4
C5 -- 47 to 80 in	loam	moderate	4.96 to 6.28 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

945D2--Lester-Storden complex, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 23 in	clay loam	moderate	2.07 to 2.62 in	5.1 to 7.3
Bt3,Bk1,Bk2 -- 23 to 80 in	loam	moderate	7.99 to 10.85 in	7.4 to 8.4

Storden, eroded

Extent: 20 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	7.4 to 8.4
C1,C2,C3,C4 -- 10 to 30 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4
C5 -- 30 to 80 in	loam	moderate	7.50 to 9.50 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

963C2--Timula-Bold complex, 6 to 12 percent slopes, eroded

Timula, eroded

Extent: 55 percent of the unit

Landform(s): ridges

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,Bw --	0 to 25 in	silt loam	moderate	5.04 to 6.05 in	6.1 to 7.8
C --	25 to 80 in	silt loam	moderate	9.85 to 10.94 in	7.4 to 8.4

Bold, eroded

Extent: 35 percent of the unit

Landform(s): ridges

Slope gradient: 6 to 12 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .49

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	silt loam	moderate	1.65 to 1.89 in	7.4 to 8.4
A,C1,C2 --	8 to 80 in	silt loam	moderate	14.41 to 17.29 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

963D2--Timula-Bold complex, 12 to 18 percent slopes, eroded

Timula, eroded

Extent: 55 percent of the unit

Landform(s): ridges

Slope gradient: 12 to 18 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,Bw --	0 to 30 in	silt loam	moderate	5.98 to 7.18 in	6.1 to 7.8
C --	30 to 80 in	silt loam	moderate	9.00 to 10.00 in	7.4 to 8.4

Bold, eroded

Extent: 35 percent of the unit

Landform(s): ridges

Slope gradient: 12 to 18 percent

Parent material: loess

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .49

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

Representative soil profile:

		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 8 in	silt loam	moderate	1.65 to 1.89 in	7.4 to 8.4
A,C1,C2 --	8 to 80 in	silt loam	moderate	14.41 to 17.29 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1013--Pits, quarry

Pits, quarry

Extent: 100 percent of the unit

Landform(s): structural benches

Slope gradient: 2 to 12 percent

Parent material: residuum

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

1016--Udorthents, loamy (cut and fill land)

Udorthents, loamy

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 20 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

C -- 0 to 80 in loam

moderately rapid 6.39 to 11.19 in 6.6 to 9.0

Map Unit Description (MN)

Rice County, Minnesota

1030--Pits, gravel-Udipsamments complex

Pits, gravel

Extent: 45 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 30 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Udipsamments

Extent: 45 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 30 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 1

Wind erodibility index (WEI): 220

Kw factor (surface layer) .02

Land capability, nonirrigated 8s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

AC --	0 to 14 in	sand	rapid	0.71 to 1.42 in	6.6 to 7.3
C1 --	14 to 60 in	sand	rapid	2.28 to 3.65 in	6.6 to 7.3
C2 --	60 to 80 in	coarse sand	very rapid	0.60 to 1.00 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1058--Houghton and Muskego soils, ponded, 0 to 1 percent slopes

Houghton, ponded

Extent: 45 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 72 in	muck	moderately rapid	25.22 to 32.42 in	
Oa2,Oa3,Oa4, -- 72 to 80 in	muck	moderately rapid	2.76 to 3.54 in	

Muskego, ponded

Extent: 45 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material over coprogenic material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .02

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oap,Oa1,Oa2, -- 0 to 35 in	muck	moderately rapid	12.26 to 15.77 in	
C -- 35 to 80 in	coprogenous earth	moderate	8.08 to 10.77 in	

Map Unit Description (MN)

Rice County, Minnesota

1080--Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

Klossner, ponded

Extent: 30 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer)

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 40 in	muck	moderately rapid	14.06 to 18.07 in	
A,Cg -- 40 to 80 in	mucky silt loam	moderate	5.57 to 8.75 in	

Okoboji, ponded

Extent: 30 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .17

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 -- 0 to 15 in	mucky silty clay loam	moderate	3.29 to 3.74 in	6.1 to 7.8
A3,A4 -- 15 to 45 in	silty clay	moderately slow	5.39 to 5.98 in	6.6 to 7.8
Cg1,Cg2,Cg3 - 45 to 80 in	silty clay	moderately slow	6.31 to 7.01 in	6.6 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1080--Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

Glencoe, ponded

Extent: 30 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .24

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A1 -- 0 to 24 in	mucky loam	moderate	4.32 to 5.28 in	6.1 to 7.8
A2,ABg -- 24 to 34 in	clay loam	moderate	1.48 to 1.87 in	6.6 to 7.8
Bg,Cg -- 34 to 80 in	clay loam	moderate	6.91 to 8.75 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1116F--Brodale-Eyota complex, 12 to 35 percent slopes

Brodale

Extent: 55 percent of the unit

Landform(s): structural benches

Slope gradient: 15 to 35 percent

Parent material: residuum

Restrictive feature(s): lithic bedrock at 40 to 80 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .15

Land capability, nonirrigated 7s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 --	0 to 3 in	flaggy loam		moderate	0.19 to 0.38 in	6.6 to 8.4
A2,A3,C1,C2, -	3 to 47 in	loam		moderately rapid	1.75 to 3.93 in	7.4 to 8.4
-						
R --	47 to 57 in	unweathered bedrock		rapid		

Eyota

Extent: 35 percent of the unit

Landform(s): structural benches

Slope gradient: 12 to 35 percent

Parent material: alluvium over colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 2

Wind erodibility index (WEI): 134

Kw factor (surface layer) .24

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: A

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 --	0 to 12 in	loamy fine sand		moderately rapid	1.18 to 1.65 in	5.1 to 7.3
A2,A3 --	12 to 43 in	fine sandy loam		moderately rapid	3.73 to 4.35 in	4.5 to 6.5
2Bw1,2Bw2 --	43 to 65 in	loam		moderate	4.41 to 4.85 in	4.5 to 6.5
3C --	65 to 80 in	loamy fine sand		rapid	1.20 to 2.09 in	6.1 to 7.3

Map Unit Description (MN)

Rice County, Minnesota

1286--Prinsburg silty clay loam, 0 to 2 percent slopes

Prinsburg

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 20 in	silty clay loam	moderate	3.61 to 4.82 in	7.4 to 8.4
Bg1 -- 20 to 25 in	silt loam	moderate	0.82 to 1.13 in	7.4 to 8.4
Bg2 -- 25 to 42 in	silt loam	moderate	2.71 to 3.72 in	7.4 to 8.4
2Cg -- 42 to 80 in	loam	moderate	5.67 to 7.18 in	7.4 to 8.4

1356--Water, miscellaneous

Water, miscellaneous

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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Map Unit Description (MN)

Rice County, Minnesota

1360--Rushriver fine sandy loam, 0 to 1 percent slopes, frequently flooded

Rushriver, frequently flooded

Extent: 85 percent of the unit

Landform(s): flats on flood plains, swales on flood plains

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: A/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2,A3,A4 -- 0 to 41 in	fine sandy loam	moderately rapid	4.50 to 6.96 in	7.4 to 8.4
2C1,2C2,3C3 - 41 to 80 in	stratified coarse sand to sandy loam	rapid	2.34 to 5.85 in	7.4 to 8.4

1361--Le Sueur loam, moderately coarse substratum, 1 to 3 percent slopes

Le Sueur, moderately coarse substratum

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .17

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 13 in	loam	moderate	2.60 to 3.12 in	5.6 to 7.3
Bt1,Bt2 -- 13 to 42 in	clay loam	moderate	4.37 to 5.54 in	5.1 to 7.3
C -- 42 to 80 in	loam	moderately rapid	5.29 to 7.18 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1362B--Angus loam, 2 to 5 percent slopes

Angus

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 5 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	5.6 to 7.3
Bt1,Bt2,Bt3, -- 9 to 42 in	clay loam	moderate	4.96 to 6.28 in	5.1 to 7.3
Bk1,Bk2,Bk3 -- 42 to 80 in	loam	moderate	5.29 to 7.18 in	7.4 to 8.4

1363--Dundas silt loam, moderately coarse substratum, 0 to 2 percent slopes

Dundas, moderately coarse substratum

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .43

Land capability, nonirrigated 2w

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 15 in	silt loam	moderate	3.29 to 3.59 in	5.6 to 7.3
Btg1,2Btg2,2 -- 15 to 40 in	clay loam	moderately slow	3.78 to 4.79 in	5.1 to 7.3
2Bk -- 40 to 80 in	loam	moderately rapid	5.57 to 7.56 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1366--Talcot silty clay loam, 0 to 1 percent slopes

Talcot

Extent: 90 percent of the unit

Landform(s): outwash plains, terraces

Slope gradient: 0 to 1 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,Bg -- 0 to 25 in	silty clay loam	moderate	4.54 to 5.54 in	7.4 to 8.4
2C1,2C2,2C3 - 25 to 48 in	loamy sand	moderate	3.88 to 4.57 in	7.4 to 8.4
-				
2C4 -- 48 to 80 in	sand	rapid	0.64 to 1.28 in	7.4 to 8.4

1367--Derrynane clay loam, 1 to 3 percent slopes

Derrynane

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: alluvium and/or colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 18 in	clay loam	moderately slow	3.08 to 3.44 in	6.1 to 7.3
A2 -- 18 to 36 in	silty clay	moderately slow	2.30 to 2.83 in	6.1 to 7.3
A3,Bg -- 36 to 55 in	silty clay	moderately slow	2.89 to 3.67 in	6.1 to 7.3
2BCg -- 55 to 80 in	silty clay loam	moderate	3.47 to 4.46 in	6.1 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1387A--Collinwood silty clay loam, moderately wet, 0 to 3 percent slopes

Collinwood, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 3 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 2w

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 14 in	silty clay loam	moderately slow	1.98 to 2.41 in	5.6 to 7.3
Bw1,Bw2,Bw3 -- 14 to 41 in	silty clay	moderately slow	3.48 to 4.28 in	5.6 to 7.3
Bk -- 41 to 80 in	silty clay	moderately slow	4.29 to 5.85 in	7.4 to 8.4

1388B--Terril loam, moderately wet, 2 to 6 percent slopes

Terril, moderately wet

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: alluvium over colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	loam	moderate	1.81 to 1.99 in	6.1 to 7.3
A,AB -- 9 to 44 in	clay loam	moderate	5.96 to 6.66 in	6.1 to 7.3
Bw -- 44 to 80 in	loam	moderate	5.73 to 6.45 in	6.1 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1408B--Angus-Kilkenny complex, 2 to 6 percent slopes

Angus

Extent: 50 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 5 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderate	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2,Bt3, -- 9 to 30 in	clay loam	moderate	3.13 to 3.96 in	5.1 to 7.3
Bk1,Bk2,Bk3 -- 30 to 80 in	loam	moderate	7.00 to 9.50 in	7.4 to 8.4

Kilkenny

Extent: 40 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	clay loam	moderately slow	1.54 to 1.72 in	5.6 to 7.3
Bt1,Bt2,Bt3 -- 9 to 28 in	silty clay loam	moderately slow	2.83 to 3.59 in	5.6 to 7.3
2C -- 28 to 80 in	loam	moderate	7.28 to 8.31 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1409A--Kenyon silt loam, moderately wet, 0 to 3 percent slopes

Kenyon, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 3 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,BA	--	0 to 14 in	silt loam	moderate	2.83 to 3.12 in	5.6 to 7.3
2Bt1,2Bt2,2B	--	14 to 37 in	clay loam	moderate	3.88 to 4.34 in	5.1 to 7.3
2Bk2,2Bk3,2B		37 to 80 in	loam	moderately slow	4.29 to 6.44 in	6.6 to 8.4
--						

Map Unit Description (MN)

Rice County, Minnesota

1409B--Kenyon silt loam, moderately wet, 3 to 6 percent slopes

Kenyon, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 14 in	silt loam		moderate	2.83 to 3.12 in	5.6 to 7.3
BA --	14 to 54 in	clay loam		moderate	6.76 to 7.56 in	5.1 to 7.3
2Bt1,2Bt2,2B --	54 to 76 in	loam		moderate	3.75 to 4.19 in	6.6 to 8.4
2Bk1,2Bk2,2B --	76 to 80 in	loam		moderately slow	0.39 to 0.59 in	6.6 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1410B--Racine silt loam, moderately wet, 2 to 6 percent slopes

Racine, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	silt loam		moderate	1.56 to 1.70 in	5.1 to 7.3
Bt1 --	7 to 29 in	clay loam		moderate	4.41 to 4.85 in	4.5 to 6.0
Bt2,2Bt3,2Bt --	29 to 48 in	loam		moderate	2.83 to 3.59 in	4.5 to 6.0
2Bk1,2Bk2,2C --	48 to 80 in	loam		moderately slow	3.19 to 4.78 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1410C--Racine silt loam, moderately wet, 6 to 12 percent slopes, eroded

Racine, moderately wet, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	silt loam		moderate	1.56 to 1.70 in	5.1 to 7.3
Bt1 --	7 to 20 in	clay loam		moderate	2.60 to 2.86 in	4.5 to 6.0
Bt2,Bt3,2Bt4 --	20 to 48 in	loam		moderate	4.19 to 5.31 in	4.5 to 6.0
2Bk1,2Bk2,2C --	48 to 80 in	loam		moderately slow	3.19 to 4.78 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1411B--Urban land-Hayden-Estherville complex, 1 to 6 percent slopes

Urban land

Extent: 50 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 6 percent

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Hayden

Extent: 30 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: outwash over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .37

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Ap --	0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt1,Bt2,Bt3, --	7 to 60 in	clay loam	moderate	7.91 to 10.02 in	5.1 to 7.3
Bk2 --	60 to 80 in	loam	moderate	2.81 to 3.81 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1411B--Urban land-Hayden-Estherville complex, 1 to 6 percent slopes

Estherville

Extent: 20 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: outwash over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1 -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.98 in	5.6 to 7.3
A2,Bw1 -- 11 to 16 in	loamy coarse sand	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
2Bw2,2C1,2C2 -- 16 to 80 in	very gravelly coarse sand	very rapid	1.28 to 2.55 in	6.6 to 8.4

1413B--Littleton silt loam, till substratum, 1 to 4 percent slopes

Littleton, till substratum

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 4 percent

Parent material: alluvium over colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	silt loam	moderate	1.81 to 2.17 in	5.6 to 7.8
A1,A2 -- 9 to 26 in	silt loam	moderate	3.72 to 4.06 in	5.6 to 7.8
Bw1,Bw2 -- 26 to 66 in	silt loam	moderate	8.03 to 8.83 in	5.6 to 7.8
2C -- 66 to 80 in	loam	moderate	2.34 to 2.62 in	7.4 to 7.8

Map Unit Description (MN)

Rice County, Minnesota

1416C--Renova loam, moderately wet, 6 to 12 percent slopes

Renova, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E --	0 to 10 in	loam		moderate	2.17 to 2.36 in	5.6 to 6.5
Bt1 --	10 to 17 in	clay loam		moderate	1.42 to 1.56 in	4.5 to 6.0
2Bt2,2Bt3,2B --	17 to 54 in	loam		moderate	5.55 to 7.03 in	4.5 to 7.3
2BC,2C --	54 to 80 in	loam		moderately slow	2.60 to 3.90 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1437B--Renova silt loam, moderately wet, 2 to 6 percent slopes

Renova, moderately wet

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .43

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E --	0 to 10 in	silt loam	moderate	2.17 to 2.36 in	5.6 to 6.5
Bt1 --	10 to 19 in	clay loam	moderate	1.81 to 1.99 in	4.5 to 6.0
2Bt2,2Bt3,2B --	19 to 52 in	loam	moderate	4.96 to 6.28 in	4.5 to 7.3
2BC,2C --	52 to 80 in	loam	moderately slow	2.80 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

1501--Klossner mucky silty clay loam, overwash, 0 to 1 percent slopes

Klossner, overwash

Extent: 85 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: organic material over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 1

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	mucky silty clay loam	moderate	1.56 to 1.84 in	
Oa --	7 to 44 in	muck	moderately rapid	12.95 to 17.76 in	
A --	44 to 58 in	mucky silt loam	moderate	3.03 to 3.58 in	
Cg --	58 to 80 in	silt loam	moderate	3.31 to 4.19 in	

1831--Colo silt loam, channeled, 0 to 2 percent slopes, frequently flooded

Colo, channeled, frequently flooded

Extent: 85 percent of the unit

Landform(s): flats on flood plains, swales on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1,A2 --	0 to 23 in	silt loam	moderate	5.02 to 5.48 in	5.6 to 7.3
A3 --	23 to 37 in	silty clay loam	moderate	2.55 to 2.83 in	5.6 to 7.3
A4 --	37 to 80 in	silty clay loam	moderate	7.72 to 8.58 in	6.1 to 7.3

Map Unit Description (MN)

Rice County, Minnesota

1962--Mazaska-Rolfe complex, 0 to 2 percent slopes

Mazaska

Extent: 50 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 10 in	clay loam	moderately slow	1.67 to 2.17 in	6.1 to 7.3
Btg1,Btg2,Bt -- 10 to 50 in	clay	slow	4.02 to 6.43 in	4.5 to 6.5
Bk -- 50 to 80 in	clay loam	moderate	4.19 to 4.79 in	7.4 to 7.8

Rolfe

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 1 percent

Parent material: glaciolacustrine deposits over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 22 in	silt loam	moderate	4.85 to 5.29 in	5.1 to 7.3
Btg1,Btg2,Bt -- 22 to 49 in	clay	slow	2.94 to 3.48 in	6.1 to 7.3
2Btg5,2Btg6, -- 49 to 80 in	clay loam	moderate	4.35 to 4.98 in	6.1 to 8.4

Map Unit Description (MN)

Rice County, Minnesota

W--Water

Water

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.